

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 March 2009 (26.03.2009)

PCT

(10) International Publication Number
WO 2009/037318 A1

(51) International Patent Classification:

G01B 11/26 (2006.01) **G11B 21/24** (2006.01)

(21) International Application Number:

PCT/EP2008/062459

(22) International Filing Date:

18 September 2008 (18.09.2008)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

BO2007A000637

19 September 2007 (19.09.2007) IT

(71) Applicant (for all designated States except US): **MARPOSS SOCIETA' PER AZIONI** [IT/IT]; Patent Department, Via Saliceto 13, I-40010 Bentivoglio BO (IT).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CIPRIANI, Riccardo** [IT/IT]; Via delle Mandriole 59, I-44100 Ferrara (IT). **ROMAGNOLI, Stefano** [IT/IT]; Via Bertini 20, I-40127 Bologna (IT).

(74) Common Representative: **MARPOSS SOCIETA' PER AZIONI**; Patent Department, Via Saliceto 13, I-40010 Bentivoglio BO (IT).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- of inventorship (Rule 4.17(iv))

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(54) Title: APPARATUS AND METHOD FOR CHECKING COMPONENT PARTS OF A MECHANICAL PIECE

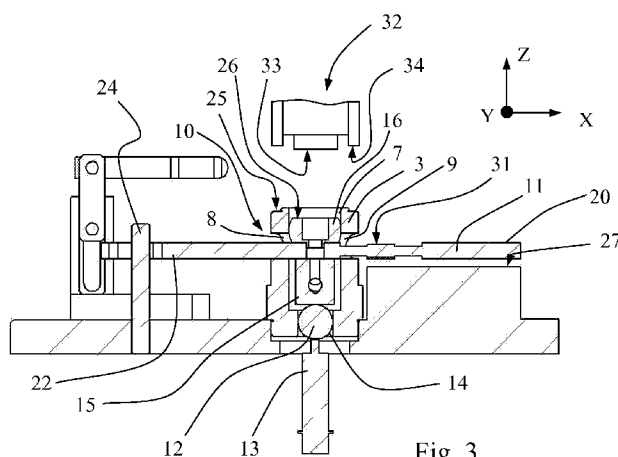


Fig. 3

(57) Abstract: An optoelectronic system for checking the relative attitude of component parts of an HSA (32) including a base (2); a reference system (40) connected to the base and having a stationary support (3) adapted to cooperate with positioning surfaces (34) of the HSA, and a floating device (10) which floats with respect to the stationary support and is adapted to cooperate with working surfaces (33) of the HSA; an optoelectronic detection device; and a processing unit for receiving and processing signals from the optoelectronic detection device. The floating device includes a floating element (11) adapted to cooperate with the optoelectronic detection device. A method for checking the relative attitude of component parts of a mechanical piece by means of an optoelectronic system includes the steps of referring a first component part of the HSA to the reference system; locking the HSA at a checking position; bringing the floating device with the floating element (11) to contact a second component part of the HSA; and carrying out dimensional and positional checkings of component parts of the floating element (11) by means of the optoelectronic system.

WO 2009/037318 A1